

Hennepin County Office of Planning & Development

Robert E. Sherman, Ph.D., Statistical Consulting in Health, Medical, and Social Services

September 6, 1994

Mr. Robert D. Miller, Director
Neighborhood Revitalization Program
105 5th Avenue South, Suite 425
Minneapolis, MN

Dear Mr. Miller,

I have reviewed the NRP funding allocation guideline options and neighborhood data as presented on the computer file you supplied to me. To summarize, the presented material explored 15 different formulae for allocation guidelines based on various weightings of five neighborhood descriptors:

1. The size of the neighborhood population,
2. An index of low economic status, based on average income,
3. The number of dwelling units in the neighborhood,
4. The number of substandard dwelling units, and
5. The number of dwelling units owned by absentee landlords.

Nine neighborhoods of an original 80 (not including the University of Minnesota) already have approved development plans with budgets which total \$26,237,250. There remains \$148,762,750 of the original \$175,000,000 to be used for the neighborhood plans of the remaining 71 neighborhoods. The 15 different formulae were applied to compute guideline values for each of these 71 neighborhoods. The average for all 15 allocation guidelines are presented, along with minimum and maximum values, medians, and the standard deviation of the 15 values for each neighborhood. The mean results are the same as you would obtain had you chosen to allocate 21%, 15%, 13.87%, 40.27%, and 9.87% of the \$148,762,750 according to the percentages generated respectively by each of the 5 above variables. See the enclosed statistical summary.

For comparison purposes the guideline formulae were also applied to the 9 neighborhoods with approved plans, and these were included in the statistics of the first six columns of the summary table. The last two columns fill in the actual budget values for the approved plans.

The resulting mean or median allocation guideline values offer a statistically sound beginning point for planning purposes. It should be emphasized, however, that these statistics cannot take account of all the differences among neighborhoods, nor supplant a keen review of individual plans for appropriateness and efficiency.

Sincerely,



Robert E. Sherman, Ph.D.
Chief Biometrician

STATISTICAL SUMMARY OF ALLOCATION FORMULAE #1A THROUGH #10B

With approved plans (with *) not included in the allocation, but filled in as approved in last two columns.

Suggested amount

Neighborhood	Average of Formulas	Minimum Value	Maximum Value	Median Value	20% of Median Value	Standard Deviation	Nominal Plan Approval Range
							Median + 20%
Camden Community							
Camden	2,495,883	2,188,181	2,747,354	2,515,890	503,178	178,029	2,012,712 3,019,068
Cleveland	1,035,194	905,806	1,214,484	1,061,203	212,241	96,399	848,962 1,273,443
Folwell	1,960,695	1,757,836	2,259,075	1,991,252	398,250	132,582	1,593,002 2,389,503
Lind Bohanon	1,607,503	1,425,371	1,862,408	1,644,879	328,976	121,604	1,315,903 1,973,855
McKinley	1,842,209	1,497,401	2,201,696	1,844,894	368,979	187,315	1,475,915 2,213,873
Shingle Creek	768,293	577,647	980,444	758,826	151,765	114,115	807,061 910,591
Victory	957,120	469,063	1,329,108	978,201	195,640	235,135	782,561 1,173,842
Northeast Community							
Audubon Park	2,725,530	2,264,750	3,187,636	2,801,117	560,223	271,841	2,240,894 3,361,341
Beltami	747,403	657,275	878,709	745,605	149,121	62,010	596,484 894,726
Bottineau	975,440	786,574	1,218,339	993,945	198,789	128,651	795,156 1,192,733
Columbia Park	376,133	231,787	523,805	370,068	74,014	76,156	296,055 444,082
Holland	3,566,599	2,887,361	4,470,817	3,610,932	722,186	474,388	2,888,748 4,333,118
Logan Park	1,262,086	1,104,349	1,434,452	1,263,506	252,701	88,415	1,010,805 1,516,208
Marshall Terrace	668,129	556,086	769,796	679,830	135,966	64,481	543,864 815,796
Northeast Park	495,975	393,727	607,537	489,586	97,917	63,407	391,668 587,503
Sheridan	2,024,669	1,785,889	2,399,933	2,034,335	406,867	179,639	1,627,468 2,441,202
St. Anthony East	1,161,587	991,604	1,307,775	1,196,394	239,279	104,376	957,115 1,435,673
St. Anthony West	1,095,640	1,054,858	1,127,114	1,100,486	220,097	20,026	880,389 1,320,583
Waite Park	1,198,023	648,569	1,667,724	1,232,899	246,580	281,071	988,319 1,479,478
Windom Park	2,744,047	2,455,114	2,915,614	2,819,863	563,973	148,035	2,255,890 3,383,835
Longfellow Community							
Cooper	1,115,809	852,572	1,442,883	1,138,812	227,762	164,279	911,049 1,366,574
Hiawatha	1,841,886	1,441,691	2,406,638	1,860,628	372,126	259,493	1,488,503 2,232,754
Howe	3,482,823	2,526,226	4,474,262	3,465,633	693,127	559,518	2,772,506 4,158,760
Longfellow	2,833,067	2,348,923	3,310,581	2,821,589	564,318	257,719	2,257,271 3,385,906
Seward	3,831,252	3,439,560	4,244,961	3,852,067	770,413	240,092	3,081,654 4,622,481
Southwest Community							
Armatage	1,055,480	524,051	1,400,807	1,109,832	221,966	250,630	887,865 1,331,798
East Harriet*	1,110,013	730,094	1,389,408	1,114,718	222,944	184,926	1,661,000 1,661,000
Fuller	1,126,005	778,660	1,530,614	1,107,383	221,477	202,358	885,907 1,328,860
Fulton	1,311,996	722,863	1,785,138	1,348,726	269,745	289,331	1,078,980 1,618,471
Kenny	625,511	236,750	929,697	621,896	124,379	193,844	497,517 746,275
King Field	2,992,256	2,374,451	3,763,930	3,011,144	602,229	379,647	2,408,915 3,613,373
Linden Hills	1,730,996	839,560	2,216,196	1,772,956	354,591	398,255	1,418,365 2,127,548
Lynhurst	1,036,030	447,805	1,527,677	1,016,683	203,337	295,440	813,346 1,220,020
Windom*	1,187,849	660,550	1,575,194	1,184,745	236,949	242,732	1,749,200 1,749,200
Near North Community							
Harrison	2,912,761	2,581,450	3,591,857	2,937,687	587,537	300,219	2,350,149 3,525,224
Hawthorne	4,647,237	3,870,563	5,871,560	4,586,515	917,303	561,611	3,669,212 5,503,818
Jordan*	4,673,469	4,048,077	5,499,066	4,628,181	925,636	397,006	6,691,000 6,691,000
Near North	3,691,344	2,804,587	4,595,958	3,761,597	752,319	544,779	3,009,277 4,513,916
Sumner-Glenwood	2,497,927	1,339,466	3,622,825	2,504,555	500,911	618,531	2,003,644 3,005,465
Willard Hay	3,813,946	3,391,131	4,070,025	3,806,364	761,273	204,716	3,045,091 4,567,636

LOCATION BASES:

Population:	40%	30%	20%	10%	50%	40%	25%	20%	20%	20%	20%	20%
Low Income Index:	20%	20%	30%	30%	50%	50%	40%	25%	20%	20%	10%	10%
Dwelling Units:												
Substandard Housing:	40%	50%	50%	60%	50%	40%	20%	25%	20%	30%	30%	20%
Absentee Ownership:												

Neighborhood	Formula #1A	Formula #1B	Formula #1C	Formula #1D	Formula #1E	Formula #2	Formula #3	Formula #4	Formula #5	Formula #6A	Formula #6B	Formula #7	Formula #8	Formula #9	Formula #10A	Formula #10B
Camden Community	2,660,191	2,751,000	2,753,423	2,824,322	2,746,423	2,462,987	2,309,220	2,804,605	2,301,433	2,464,145	2,300,165	2,700,080	2,211,990	2,543,420	2,643,660	
Camden	1,085,951	1,085,951	1,016,976	956,025	1,249,900	1,097,715	943,122	975,612	1,022,693	1,124,038	942,374	1,087,453	924,637	1,194,410	1,082,786	
Cleveland	1,151,705	2,005,282	1,082,866	1,034,363	2,330,146	2,113,806	1,769,282	2,056,801	1,863,507	2,046,626	1,603,760	2,082,810	1,886,717	2,078,460	2,020,120	
Fairview	2,113,705															
Lind Bohannon	1,752,858	1,706,637	1,900,151	1,553,931	1,919,909	1,711,103	1,450,535	1,616,864	1,544,017	1,708,860	1,747,521	1,720,016	1,496,452	1,743,895	1,643,028	
McKinley	2,019,517	2,068,784	2,176,220	2,257,507	1,839,923	1,752,246	1,804,821	1,910,800	1,693,051	1,717,335	1,742,571	1,900,331	1,536,023	1,820,210	1,930,247	
Shingle Creek	875,209	767,353	665,549	567,693	910,983	604,971	736,761	693,260	847,740	699,947	723,216	772,493	682,265	954,327	625,210	
Victory	1,066,360	801,286	671,934	484,491	1,360,486	1,164,797	860,747	610,511	1,039,220	1,232,824	621,760	1,008,654	601,225	1,293,349	967,492	
Northeast Community																
Audubon Park	2,914,387	3,025,927	2,690,286	3,001,522	3,287,205	2,894,308	2,315,082	3,117,389	2,347,684	2,714,676	2,433,362	3,087,395	2,552,081	2,681,970	2,836,259	
Bellarm	794,937	633,520	801,984	803,432	1,126,341	1,151,905	1,257,590	1,069,121	805,455	804,283	696,695	723,894	787,913	673,046	744,696	
Bonneau	1,023,702															
Columbia Park	420,856	375,515	294,592	210,217	531,382	499,903	310,397	361,154	362,623	452,986	311,156	362,075	366,935	405,724	1,029,420	
Holland	3,772,997	4,139,356	4,247,020	4,613,386	3,924,012	3,498,542	3,203,405	4,231,261	2,942,156	3,210,894	3,269,011	3,653,863	3,176,937	3,147,694	3,76,817	
Logan Park	1,275,798	1,325,433	1,418,056	1,466,265	1,142,861	1,157,240	1,320,841	1,266,510	1,277,208	1,222,061	1,345,237	1,307,776	1,228,894	3,714,461		
Marshall Terrace	700,656	734,587	703,554	737,493	706,664	710,136	506,466	776,015	515,510	664,468	607,120	756,321	647,868	643,924	1,330,973	
Northeast Park	506,184	554,114	536,633	584,763	568,876	534,293	417,582	630,154	402,550	470,327	449,819	546,733	499,161	432,637	504,202	
Sheidan	2,090,551	2,246,366	2,314,633	2,470,850	2,109,339	1,993,915	1,928,924	2,295,549	1,616,303	1,689,056	1,972,607	2,186,081	1,863,192	2,06,191		
St. Anthony East	1,209,347	1,310,550	1,331,332	1,024,267	1,027,304	1,259,384	1,050,866	1,222,262	1,139,002	1,244,883	1,166,065	1,166,025	1,216,773	1,241,686		
St. Anthony West	1,126,223	1,124,429	1,122,146	1,122,404	1,094,887	1,087,306	1,114,587	1,130,927	1,116,316	1,144,775	1,093,313	1,146,900	1,141,187			
Walle Park	1,380,002	1,156,859	830,975	670,932	1,704,627	954,735	1,027,154	1,255,249	1,528,852	1,015,053	1,312,126	1,197,328	1,866,581	1,278,441		
Windom Park	2,930,735	2,960,011	2,962,751	2,954,532	2,602,136	2,696,413	2,754,966	2,631,559	2,786,626	2,654,946	2,933,713	2,510,663	2,872,065	2,913,045		
Longfellow Community																
Cooper	1,168,508	1,127,138	847,686	866,513	1,465,635	1,312,744	696,112	1,189,999	1,055,961	1,260,456	984,074	1,264,329	1,162,599	1,254,261	1,156,065	
Hawaiia	1,984,386	1,923,700	1,845,302	1,564,606	2,480,495	2,174,654	1,476,070	1,053,201	1,972,729	2,010,438	1,575,771	2,058,953	1,863,000	1,982,268	1,686,613	
Howe	3,706,500	3,945,904	3,862,284	3,641,669	4,633,125	3,937,242	2,604,960	4,416,051	2,889,456	3,369,135	2,885,286	3,326,407	3,245,451	3,541,169		
Longfellow	3,970,390	3,186,460	3,203,422	3,391,492	2,747,173	2,629,580	2,747,173	2,625,172	2,659,310	2,716,122	2,745,847	2,985,747	2,497,301	2,803,453	3,034,501	
Seward	4,025,086	4,053,647	4,270,291	4,340,451	3,746,359	3,452,261	3,652,172	3,993,400	3,610,714	3,793,522	3,906,406	4,021,532	3,512,594	3,062,079	4,100,465	
Southeast Community																
Annette	1,147,712	902,732	726,776	541,798	1,434,840	1,204,852	803,671	894,892	1,151,482	1,374,029	990,741	1,175,641	1,126,394	1,410,770	1,130,428	
East Harriet	1,142,824	1,045,996	654,654	756,227	1,126,279	1,316,884	934,465	1,125,628	1,131,724	1,334,663	1,040,530	1,240,874	1,202,850	1,149,265		
Fulton	1,250,231	1,141,193	705,402	806,366	1,347,789	1,346,686	698,691	1,114,801	1,084,039	1,344,925	946,352	1,422,382	1,102,914	1,362,150	1,172,273	
Kenny	1,463,716	1,250,709	961,241	746,234	1,828,944	1,593,839	1,077,477	1,167,625	1,363,330	1,655,403	1,411,529	1,425,201	1,344,898	1,711,241	1,377,334	
King Field	759,477	580,847	411,587	242,987	949,346	794,632	518,607	457,572	704,270	641,600	500,978	611,450	517,583	655,492		
Linden Hills	3,108,633	3,123,920	2,742,797	2,757,784	3,886,167	3,502,013	2,434,433	3,531,987	2,658,512	3,213,565	2,647,559	3,402,462	3,168,446	3,022,352	3,022,012	
Lynhurst	1,615,980	1,527,656	1,156,493	866,161	2,209,988	2,116,114	1,510,149	1,539,450	1,931,066	2,244,355	1,642,068	1,872,117	1,976,646	2,23,797	1,705,981	
Windom	1,248,100	904,339	713,784	480,964	1,322,884	812,680	617,243	1,141,074	1,355,332	627,083	1,034,214	953,313	1,475,465	1,085,649		
Near North Community																
Harison	3,920,750	3,216,314	3,476,686	3,676,450	2,687,171	2,686,307	3,086,138	3,081,405	2,799,471	2,630,620	2,931,923	2,667,920	2,706,206	3,001,365		
Hawthorne	4,974,885	5,207,387	5,711,871	6,004,353	4,376,358	4,239,887	4,950,927	4,824,850	4,421,721	4,131,568	4,574,442	3,982,657	4,363,399	4,791,569		
Jordan	5,007,650	5,226,520	5,421,011	5,611,690	4,843,566	4,546,930	4,860,636	4,990,267	4,357,300	4,354,652	4,50,350	4,76,584	4,804,987			
Near North	4,107,163	4,610,163	4,615,205	3,250,079	4,686,205	3,190,015	4,246,354	3,286,016	3,617,685	3,330,985	3,782,376	3,322,203	2,662,541	3,842,542		
Summer-Glenwood	2,569,392	2,522,617	3,084,330	3,047,755	1,379,791	1,902,899	3,620,676	1,859,746	3,229,336	3,708,116	1,829,869	2,269,869	2,56,009	2,476,009		
Willard Hay	4,137,582	4,153,739	4,157,704	4,145,807	3,921,417	4,145,807	3,953,730	3,707,510	3,129,056	3,626,905	3,770,724	3,463,655	3,676,441	3,653,285		

BASE DATA FOR NRP FUNDING ALLOCATION

Neighborhood	Population	% of Total Population	Average Income	Income Category	LOW INCOME INDEX	% of Total Low Inc Ind	Total Dwelling Units	% of All Dwelling Units	Subsid. Housing (Units)	% of All Subsid. Housing	Absentee Ownership (%)	Number of Absentee Owned Units	% of All Absentee Owned Units
Camden Community	4,948	1.3668%	27,868	2	8898.00	1.3802%	2,294	1.2973%	282	1.7720%	17.33	398	0.7583%
Camden	3,216	0.884%	31,653	1	3216.00	0.4485%	1,355	0.7683%	69	0.5401%	10.77	146	0.2187%
Cleveland	5,115	1.4129%	31,496	1	5115.00	0.713%	2,183	1.2345%	206	1.2501%	17.11	374	0.7134%
Folwell	4,449	1.2280%	29,862	1	4449.00	0.6205%	1,938	1.0890%	159	0.9849%	13.54	262	0.5012%
Lind Bohanan	3,193	0.6820%	26,660	3	9579.00	1.3359%	1,259	0.7120%	220	1.3350%	23.80	300	0.5723%
McKinley	3,000	0.8287%	33,147	1	3000.00	0.4184%	1,287	0.7335%	35	0.2124%	9.25	120	0.2291%
Shingle Creek	4,750	1.3121%	34,936	0	0.00	0.0000%	2,014	1.1389%	40	0.2427%	7.16	144	0.2754%
Northeast Community													
Audubon Park	5,687	1.5654%	31,806	1	5687.00	0.7804%	2,505	1.4166%	363	2.2028%	15.32	384	0.7330%
Bellrami	1,202	0.3320%	27,073	3	3608.00	0.5039%	497	0.2811%	91	0.5522%	33.23	165	0.3154%
Bottineau	1,150	0.3177%	24,903	3	3450.00	0.4812%	581	0.3286%	149	0.9042%	23.36	136	0.2592%
Columbia Park	1,674	0.4624%	35,324	0	0.00	0.0000%	645	0.3648%	25	0.1517%	9.26	60	0.1143%
Holland	4,328	1.1956%	34,773	3	1294.00	1.8108%	1,917	1.0841%	542	3.2880%	28.04	536	1.0267%
Logan Park	1,851	0.5113%	22,295	4	7404.00	1.0326%	1,000	0.6184%	131	0.7950%	33.33	383	0.6939%
Marshall Terrace	1,287	0.3563%	30,425	1	1297.00	1.809%	610	0.3450%	91	0.5522%	17.85	109	0.2080%
Northeast Park	722	0.1984%	31,289	1	722.00	0.1007%	346	0.1057%	78	0.4733%	27.39	95	0.1610%
Sheridan	2,752	0.7622%	24,509	3	8256.00	1.1514%	1,370	0.7748%	272	1.6506%	32.36	443	0.8488%
St. Anthony East	1,997	0.5516%	23,278	4	7988.00	1.1141%	1,085	0.6136%	102	0.6190%	28.66	311	0.5939%
St. Anthony West	2,359	0.6516%	30,193	2	4718.00	0.6580%	1,208	0.6820%	104	0.6911%	24.39	284	0.5618%
Waite Park	5,707	1.5785%	36,073	0	0.00	0.0000%	2,483	1.4042%	62	0.3762%	4.84	120	0.2285%
Windom Park	5,809	1.6047%	28,397	2	11618.00	1.6203%	2,778	1.5710%	292	1.7720%	17.92	488	0.8508%
Longfellow Community													
Cooper	3,708	1.0243%	37,315	0	0.00	0.0000%	1,705	0.6642%	111	0.6736%	10.80	186	0.3550%
Hiawatha	5,759	1.5908%	38,601	0	0.00	0.0000%	2,477	1.4008%	205	1.2440%	11.49	285	0.5436%
Hove	7,108	1.9635%	33,607	0	0.00	0.0000%	3,060	1.7305%	549	3.3315%	11.28	345	0.8593%
Longfellow	5,023	1.3675%	26,412	3	15069.00	2.1016%	2,333	1.3193%	321	1.8478%	18.90	441	0.8422%
Seward	7,020	1.9392%	26,298	3	21060.00	2.8371%	3,683	2.0828%	386	2.3424%	22.55	631	1.5863%
Southwest Community													
Ambridge	4,881	1.3483%	40,541	0	0.00	0.0000%	2,326	1.3154%	48	0.2913%	7.54	175	0.3350%
East Harriet	3,954	1.0922%	48,118	0	0.00	0.0000%	1,956	1.1061%	69	0.5401%	13.48	264	0.5036%
Fuller	4,464	1.2331%	54,079	0	0.00	0.0000%	1,691	1.0691%	93	0.5644%	7.17	136	0.2590%
Fulton	5,988	1.6541%	54,483	0	0.00	0.0000%	2,634	1.4692%	72	0.4368%	7.39	195	0.3118%
Kenny	3,708	1.0243%	57,360	0	0.00	0.0000%	1,461	0.8262%	10	0.0607%	3.82	53	0.1010%
King Field	7,884	2.1778%	37,463	0	0.00	0.0000%	3,592	2.0313%	373	2.2635%	16.37	588	1.1231%
Linden Hills	7,678	2.1209%	58,718	0	0.00	0.0000%	3,683	2.0828%	78	0.4733%	12.19	449	0.8575%
Lynnhurst	5,845	1.6148%	75,826	0	0.00	0.0000%	2,237	1.2651%	28	0.1689%	4.93	110	0.2108%
Windom	5,188	1.4331%	34,064	0	0.00	0.0000%	2,147	1.2142%	68	0.4126%	14.40	309	0.5905%
Near North Community													
Harrison	3,538	0.9768%	19,319	5	17680.00	2.4658%	1,682	0.9399%	347	2.1057%	47.58	791	1.5104%
Hawthorne	8,032	1.6663%	20,289	5	30160.00	4.2063%	2,328	1.3171%	550	3.3316%	47.35	1103	2.1063%
Jordan	7,737	2.1372%	26,323	3	23211.00	3.2371%	3,095	1.7508%	560	3.3983%	32.57	1008	1.9260%
Near North	6,175	1.705%	19,384	5	30975.00	4.3060%	2,125	1.2017%	331	2.0086%	41.53	883	1.6856%
Summer Glenwood	3,336	0.9215%	8,932	9	30024.00	4.1873%	1,315	0.7437%	108	0.6554%	100.00	1315	2.5116%
Willard Hay	8,409	2.3229%	29,459	2	16818.00	2.3455%	3,150	1.7814%	398	2.4152%	28.72	905	1.7279%

